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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 10   Time limit for inactive STN sessions doubles to 40
                   minutes
 NEWS  3  AUG 18   COMPENDEX indexing changed for the Corporate Source
                   (CS) field
 NEWS  4  AUG 24   ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
 NEWS  5  AUG 24   CA/CAplus enhanced with legal status information for
                   U.S. patents
 NEWS  6  SEP 09   50 Millionth Unique Chemical Substance Recorded in
                   CAS REGISTRY
 NEWS  7  SEP 11   WPIDS, WPINDEX, and WPIX now include Japanese FTERM
                   thesaurus
 NEWS  8  OCT 21   Derwent World Patents Index Coverage of Indian and
                   Taiwanese Content Expanded
 NEWS  9  OCT 21   Derwent World Patents Index enhanced with human
                   translated claims for Chinese Applications and
                   Utility Models
 NEWS 10  NOV 23   Addition of SCAN format to selected STN databases
 NEWS 11  NOV 23   Annual Reload of IFI Databases
 NEWS 12  DEC 01   FRFULL Content and Search Enhancements
 NEWS 13  DEC 01   DGENE, USGENE, and PCTGEN: new percent identity
                   feature for sorting BLAST answer sets
 NEWS 14  DEC 02   Derwent World Patent Index: Japanese FI-TERM
                   thesaurus added
 NEWS 15  DEC 02   PCTGEN enhanced with patent family and legal status
                   display data from INPADOCDB
 NEWS 16  DEC 02   USGENE: Enhanced coverage of bibliographic and
                   sequence information
 NEWS 17  DEC 21   New Indicator Identifies Multiple Basic Patent
                   Records Containing Equivalent Chemical Indexing
                   in CA/CAplus
 NEWS 18  JAN 12   Match STN Content and Features to Your Information
                   Needs, Quickly and Conveniently

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              AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.22       0.22
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FILE COVERS 1907 - 17 Jan 2010 VOL 152 ISS 4
FILE LAST UPDATED: 15 Jan 2010 (20100115/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> "feline infectious peritonitis"
          7457 "FELINE"
           124 "FELINES"
          7518 "FELINE"
                 ("FELINE" OR "FELINES")
         55603 "INFECTIOUS"
             0 "PERIRONITIS"
L1           0 "FELINE INFECTIOUS PERIRONITIS"
                 ("FELINE"(W)"INFECTIOUS"(W)"PERIRONITIS")

=> feline
          7457 FELINE
           124 FELINES
L2        7518 FELINE
                 (FELINE OR FELINES)

=> peritonitis
          4673 PERITONITIS
             1 PERITONITISES
L3        4673 PERITONITIS
                 (PERITONITIS OR PERITONITISES)

=> L2 and L3
L4         317 L2 AND L3

=> nucleocapsid
          6930 NUCLEOCAPSID
          1158 NUCLEOCAPSIDS
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L5         7424 NUCLEOCAPSID
                (NUCLEOCAPSID OR NUCLEOCAPSIDS)

=> L5 and L4
L6           41 L5 AND L4

=> KU and L6
          13961 KU
             64 KUS
          14013 KU
                (KU OR KUS)
L7            2 KU AND L6

=> D L7 IBIB ABS 1-2

L7   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2010 ACS on STN
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Full Text | 33 References

```
ACCESSION NUMBER:         2003:905747  CAPLUS
DOCUMENT NUMBER:          140:215785
TITLE:                    Vaccine efficacy of a cell lysate with recombinant
                          baculovirus-expressed feline infectious
                          peritonitis (FIP) virus nucleocapsid protein
                          against progression of FIP
AUTHOR(S):                Hohdatsu, Tsutomu; Yamato, Hiroshi; Ohkawa, Tasuku;
                          Kaneko, Miyuki; Motokawa, Kenji; Kusuhara, Hajime;
                          Kaneshima, Takashi; Arai, Setsuo; Koyama, Hiroyuki
CORPORATE SOURCE:         School of Veterinary Medicine and Animal Sciences,
                          Department of Veterinary Infectious Diseases, Kitasato
                          University, Towada, Aomori, 034, Japan
SOURCE:                   Veterinary Microbiology (2003), 97(1-2), 31-44
                          CODEN: VMICDQ; ISSN: 0378-1135
PUBLISHER:                Elsevier Science B.V.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   The Type II feline infectious peritonitis virus (FIPV) infection of
     feline macrophages is enhanced by a monoclonal antibody (MAb) to the S
     protein of FIPV.  This antibody-dependent enhancement (ADE) activity
     increased with the MAb that showed a neutralizing activity with feline
     kidney cells, suggesting that there was a distinct correlation between ADE
     activity and the neutralizing activity.  The close assocn. between
     enhancing and neutralizing epitopes is an obstacle to developing a vaccine
     contg. only neutralizing epitopes without enhancing epitopes.  In this
     study, we immunized cats with cell lysate with recombinant
     baculovirus-expressed N protein of the Type I FIPV strain KU-2 with an
     adjuvant and investigated its preventive effect on the progression of FIP.
     Cats immunized with this vaccine produced antibodies against FIPV
     virion-derived N protein but did not produce virus-neutralizing
     antibodies.  A delayed type hypersensitivity skin response to N protein
     was obsd. in these vaccinated cats, showing that cell mediated immunity
     against the FIPV antigen was induced.  When these vaccinated cats were
     challenged with a high dose of heterologous FIPV, the survival rate was
     75% (6/8), while the survival rate in the control group immunized with
     SF-9 cell-derived antigen was 12.5% (1/8).  This study showed that
     immunization with the cell lysate with baculovirus-expressed N protein was
     effective in preventing the progression of FIP without inducing ADE of
     FIPV infection in cats.
OS.CITING REF COUNT:      7     THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD
                                (7 CITINGS)
REFERENCE COUNT:          33    THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
```

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1996:424510 CAPLUS
DOCUMENT NUMBER: 125:159835
ORIGINAL REFERENCE NO.: 125:29731a,29734a
TITLE: Comparison of the amino acid sequence and phylogenetic analysis of the peplomer, integral membrane and **nucleocapsid** proteins of **feline**, canine and porcine coronaviruses
AUTHOR(S): Motokawa, Kenji; Hohdatsu, Tsutomu; Hashimoto, Hiroshi; Koyama, Hiroyuki
CORPORATE SOURCE: Dep. of Veterinary Infectious Diseases, Kitasato Univ., Aomori, 034, Japan
SOURCE: Microbiology and Immunology (1996), 40(6), 425-433
CODEN: MIIMDV; ISSN: 0385-5600
PUBLISHER: Center for Academic Publications Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Complete nucleotide sequences were detd. by cDNA cloning of peplomer (S), integral membrane (M) and **nucleocapsid** (N) genes of **feline** infectious **peritonitis** virus (FIPV) type I strain **KU**-2, UCD1 and Black, and **feline** enteric coronavirus (FECV) type II strain 79-1683. Only M and N genes were analyzed in strain **KU**-2 and strain 79-1683, which still had unknown nucleotide sequences. Deduced amino acid sequences of S, M and N proteins were compared in a total of 7 strains of coronaviruses, which included FIPV type II strain 79-1146, canine coronavirus (CCV) strain Insavc-1 and transmissible gastroenteritis virus of swine (TGEV) strain Purdue. Comparison of deduced amino acid sequences of M and N proteins revealed that both M and N proteins had an identity of at least 90% between FIPV type I and type II. The phylogenetic tree of the M and N protein-deduced amino acid sequences showed that FIPV type I and type II form a group with FECV type II, and that these viruses were evolutionarily distant from CCV and TGEV. On the other hand, when the S protein-deduced amino acid sequences was compared, identity of only about 45% was found between FIPV type I and type II. The phylogenetic tree of the S protein-deduced amino acid sequences indicated that three strains of FIPV type I form a group, and that it is a very long distance from the FIPV type II, FECV type II, CCV and TGEV groups.
OS.CITING REF COUNT: 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)

=> cat and L6
57366 CAT
35858 CATS
81965 CAT
(CAT OR CATS)
L8 15 CAT AND L6

=> D L8 IBIB ABS 1-15

L8 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2008:668532 CAPLUS
DOCUMENT NUMBER: 148:592908
TITLE: Vaccines for **feline** infectious **peritonitis** virus

(FIPV), prophylaxis of the **peritonitis** with them, and diagnosis of the **peritonitis** and assay kits therefor
INVENTOR(S): Takahashi, Takuo; Masubuchi, Katsuo; Kokubu, Teruaki
PATENT ASSIGNEE(S): Microbiochemical Research Foundation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008127283	A	20080605	JP 2006-310190	20061116
PRIORITY APPLN. INFO.:			JP 2006-310190	20061116

AB Title vaccines contain a 377-amino acid protein (sequence given), a protein having a substantially similar sequence, or protein fragments having an epitope of the above proteins and/or their fusion proteins. FIPV is prevented by administering the vaccines to **cats**. FIPV is diagnosed by detecting or quantitating anti-FIPV antibodies using the above proteins as antigens. Also claimed are FIPV infection assay kits contg. the above proteins. The proteins designed by modifying N (**nucleocapsid**) protein of FIPV type I Yayoi contain no epitopes responsible for antibody-dependent enhancement and effectively prevent infection.

L8 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | CAPLUS References

ACCESSION NUMBER: 2008:530859 CAPLUS
DOCUMENT NUMBER: 150:52964
TITLE: Detection of antigenic heterogeneity in **feline** coronavirus **nucleocapsid** in **feline** pyogranulomatous meningoencephalitis
AUTHOR(S): Poncelet, L.; Coppens, A.; Peeters, D.; Bianchi, E.; Grant, C. K.; Kadhim, H.
CORPORATE SOURCE: Anatomy/Embryology Department, Faculty of Medicine, Free University of Brussels, Brussels, Belg.
SOURCE: Veterinary Pathology (2008), 45(2), 140-153
CODEN: VTPHAK; ISSN: 0300-9858
PUBLISHER: American College of Veterinary Pathologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new monoclonal antibody (mAb), CCV2-2, was compared with the widely used FIPV3-70 mAb, both directed against canine coronavirus (CCoV), as a diagnostic and research tool. Western blot showed that both anti-CCoV mAbs only reacted with a protein of 50 kD, a wt. consistent with the **feline** coronavirus (FCoV) viral **nucleocapsid**. A competitive inhibition ELISA showed that the 2 recognized epitopes are distinct. Preincubation of CCV2-2 mAb with FCoV antigen suppressed the immunostaining. Formalin-fixed, paraffin-embedded sections from brains of 15 **cats** with the dry form of **feline** infectious **peritonitis** (FIP) were examd. by immunohistochem. Immunohistochem. was performed with both anti-CCoV mAbs, either on consecutive or on the same sections. A myeloid-histiocytic marker, MAC 387, was also used to identify FIP virus-infected cells. In all regions where MAC 387-pos. cells were present, pos. staining with the CCV2-2 mAb was systematically detected, except at some levels in 1 **cat**. In contrast, none or only a few cells were pos. for the FIPV3-70 mAb. Double immunostaining showed macrophages

that were immunopos. for either CCV2-2 alone or alternatively for CCV2-2 and FIPV3-70 mAbs. This reveals the coexistence of 2 cohorts of phagocytes whose FIP viral contents differed by the presence or absence of the FIPV3-70-recognized epitope. These findings provide evidence for antigenic heterogeneity in coronavirus **nucleocapsid** protein in FIP lesions, a result that is in line with mol. observations. In addn., we provide for the first time morphol. depiction of viral variants distribution in these lesions.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2006:216895 CAPLUS
DOCUMENT NUMBER: 144:288937
TITLE: **Feline** infectious **peritonitis** (FIP) and systemic multi-organ coronavirus biomarkers and screening methods
INVENTOR(S): Austin, Kimberly M.; Kapil, Sanjay; Kim, Jeong-Ki
PATENT ASSIGNEE(S): Kansas State University Research Foundation, USA
SOURCE: U.S. Pat. Appl. Publ., 38 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060051744	A1	20060309	US 2005-168637	20050628
WO 2006046979	A2	20060504	WO 2005-US22707	20050628
WO 2006046979	A3	20090416		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2004-584439P P 20040630
US 2005-656027P P 20050224

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Methods for screening for FIP infection or other multi-organ coronaviruses are disclosed, as well as isolated antibodies and kits useful for performing such methods. Biomarkers for multi-organ coronavirus infections include sol. enolase; antibodies to enolase; and circulating immune complexes that contain enolase. The methods find application in diagnosis, treatment, vaccine-development, and selection or breeding for disease-resistance. **Feline** serum samples were assayed by enzyme immunoassay for detection of neuron-specific enolase (NSE) using biotinylated monoclonal antibody E21 and horseradish peroxidase-labeled monoclonal antibody E17 in streptavidin-coated microtiter strips. **Cats** exposed to FIP exhibited increased levels of free NSE in sera as compared to isolated or healthy **cats**.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:1014075 CAPLUS
DOCUMENT NUMBER: 140:178069
TITLE: Mosaic evolution of the severe acute respiratory syndrome coronavirus
AUTHOR(S): Stavrinides, John; Guttman, David S.
CORPORATE SOURCE: Department of Botany, University of Toronto, Toronto, ON, M5S 3B2, Can.
SOURCE: Journal of Virology (2004), 78(1), 76-82
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Severe acute respiratory syndrome (SARS) is a deadly form of pneumonia caused by a novel coronavirus, a viral family responsible for mild respiratory tract infections in a wide variety of animals including humans, pigs, cows, mice, **cats**, and birds. Analyses to date have been unable to identify the precise origin of the SARS coronavirus. We used Bayesian, neighbor-joining, and split decompn. phylogenetic techniques on the SARS virus replicase, surface spike, matrix, and **nucleocapsid** proteins to reveal the evolutionary origin of this recently emerging infectious agent. The analyses support a mammalian-like origin for the replicase protein, an avian-like origin for the matrix and **nucleocapsid** proteins, and a mammalian-avian mosaic origin for the host-detg. spike protein. A bootscan recombination anal. of the spike gene revealed high nucleotide identity between the SARS virus and a **feline** infectious **peritonitis** virus throughout the gene, except for a 200-base-pair region of high identity to an avian sequence. These data support the phylogenetic analyses and suggest a possible past recombination event between mammalian-like and avian-like parent viruses. This event occurred near a region that has been implicated to be the human receptor binding site and may have been directly responsible for the switch of host of the SARS coronavirus from animals to humans.

OS.CITING REF COUNT: 48 THERE ARE 48 CAPLUS RECORDS THAT CITE THIS RECORD (48 CITINGS)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:905747 CAPLUS
DOCUMENT NUMBER: 140:215785
TITLE: Vaccine efficacy of a cell lysate with recombinant baculovirus-expressed **feline** infectious **peritonitis** (FIP) virus **nucleocapsid** protein against progression of FIP
AUTHOR(S): Hohdatsu, Tsutomu; Yamato, Hiroshi; Ohkawa, Tasuku; Kaneko, Miyuki; Motokawa, Kenji; Kusuhara, Hajime; Kaneshima, Takashi; Arai, Setsuo; Koyama, Hiroyuki
CORPORATE SOURCE: School of Veterinary Medicine and Animal Sciences, Department of Veterinary Infectious Diseases, Kitasato University, Towada, Aomori, 034, Japan
SOURCE: Veterinary Microbiology (2003), 97(1-2), 31-44
CODEN: VMICDQ; ISSN: 0378-1135

PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Type II **feline** infectious **peritonitis** virus (FIPV) infection of **feline** macrophages is enhanced by a monoclonal antibody (MAb) to the S protein of FIPV. This antibody-dependent enhancement (ADE) activity increased with the MAb that showed a neutralizing activity with **feline** kidney cells, suggesting that there was a distinct correlation between ADE activity and the neutralizing activity. The close assocn. between enhancing and neutralizing epitopes is an obstacle to developing a vaccine contg. only neutralizing epitopes without enhancing epitopes. In this study, we immunized **cats** with cell lysate with recombinant baculovirus-expressed N protein of the Type I FIPV strain KU-2 with an adjuvant and investigated its preventive effect on the progression of FIP. **Cats** immunized with this vaccine produced antibodies against FIPV virion-derived N protein but did not produce virus-neutralizing antibodies. A delayed type hypersensitivity skin response to N protein was obsd. in these vaccinated **cats**, showing that cell mediated immunity against the FIPV antigen was induced. When these vaccinated **cats** were challenged with a high dose of heterologous FIPV, the survival rate was 75% (6/8), while the survival rate in the control group immunized with SF-9 cell-derived antigen was 12.5% (1/8). This study showed that immunization with the cell lysate with baculovirus-expressed N protein was effective in preventing the progression of FIP without inducing ADE of FIPV infection in **cats**.
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN
Full Text | Cited References
ACCESSION NUMBER: 2003:291112 CAPLUS
DOCUMENT NUMBER: 138:396892
TITLE: Switching species tropism: An effective way to manipulate the **feline** coronavirus genome
AUTHOR(S): Haijema, Bert Jan; Volders, Haukeliene; Rottier, Peter J. M.
CORPORATE SOURCE: Institute of Virology, Department of Infectious Diseases and Immunology, Faculty of Veterinary Medicine, Utrecht University, Utrecht, 3584 CL, Neth.
SOURCE: Journal of Virology (2003), 77(8), 4528-4538
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Feline** infectious **peritonitis** virus (FIPV), a coronavirus, is the causative agent of an invariably lethal infection in **cats**. Like other coronaviruses, FIPV contains an extremely large pos.-strand RNA genome of ca. 30 kb. We describe here the development and use of a reverse genetics strategy for FIPV based on targeted RNA recombination that is analogous to what has been described for the mouse hepatitis virus (MHV) (L. Kuo et al., J. Virol. 74:1393-1406, 2000). In this two-step process, we first constructed by targeted recombination a mutant of FIPV, designated mFIPV, in which the ectodomain of the spike glycoprotein was replaced by that of MHV. This switch allowed for the selection of the recombinant virus in murine cells: mFIPV grows to high titers in these cells but has lost the ability to grow in **feline** cells. In a second, reverse process, mFIPV was used as the recipient, and the reintroduction of the FIPV spike now

allowed for selection of candidate recombinants by their regained ability to grow in **feline** cells. In this fashion, we reconstructed a wild-type recombinant virus (r-wtFIPV) and generated a directed mutant FIPV in which the initiation codon of the nonstructural gene 7b had been disrupted (FIPVΔ7b). The r-wtFIPV was indistinguishable from its parental virus FIPV 79-1146 not only for its growth characteristics in tissue culture but also in **cats**, exhibiting a highly lethal phenotype. FIPVΔ7b had lost the expression of its 7b gene but grew unimpaired in cell culture, confirming that the 7b glycoprotein is not required in vitro. We establish the second targeted RNA recombination system for coronaviruses and provide a powerful tool for the genetic engineering of the FIPV genome.

OS.CITING REF COUNT: 51 THERE ARE 51 CAPLUS RECORDS THAT CITE THIS RECORD (51 CITINGS)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2002:52549 CAPLUS
DOCUMENT NUMBER: 136:230948
TITLE: Adverse effects of **feline** IL-12 during DNA vaccination against **feline** infectious **peritonitis** virus
AUTHOR(S): Glansbeek, Harrie L.; Haagmans, Bart L.; te Lintelo, Eddie G.; Egberink, Herman F.; Duquesne, Veronique; Aubert, Andre; Horzinek, Marian C.; Rottier, Peter J. M.
CORPORATE SOURCE: Virology Division, Department of Infectious Diseases and Immunology, Veterinary Faculty, Utrecht University, Utrecht, 3584 CL, Neth.
SOURCE: Journal of General Virology (2002), 83(1), 1-10
CODEN: JGVIAY; ISSN: 0022-1317
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cell-mediated immunity is thought to play a decisive role in protecting **cats** against **feline** infectious **peritonitis** (FIP), a progressive and lethal coronavirus disease. In view of the potential of DNA vaccines to induce cell-mediated responses, their efficacy to induce protective immunity in **cats** was evaluated. The membrane (M) and **nucleocapsid** (N) proteins were chosen as antigens, because antibodies to the spike (S) protein of FIP virus (FIPV) are known to ppt. pathogenesis. However, vaccination by repeated injections of plasmids encoding these proteins did not protect kittens against challenge infection with FIPV. Also, a prime-boost protocol failed to afford protection, with priming using plasmid DNA and boosting using recombinant vaccinia viruses expressing the same coronavirus proteins. Because of the role of IL-12 in initiating cell-mediated immunity, the effects of co-delivery of plasmids encoding the **feline** cytokine were studied. Again, IL-12 did not meet expectations - on the contrary, it enhanced susceptibility to FIPV challenge. This study shows that DNA vaccination failed to protect **cats** against FIP and that IL-12 may yield adverse effects when used as a cytokine adjuvant.

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Other References

ACCESSION NUMBER: 2001:407944 CAPLUS
DOCUMENT NUMBER: 135:32731
TITLE: Recombinant multivalent vaccines for immunization against **feline** viral pathogens
INVENTOR(S): Scott, Fred W.; Ngichabe, Christopher K.; Hu, Liangbiao; Esposito, Joseph J.
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; United States Dept. of Health and Human Services
SOURCE: U.S., 35 pp., Cont.-in-part of U.S. Ser. No. 190,789, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6241989	B1	20010605	US 1995-552369	19951103
US 7087234	B1	20060808	US 2001-873881	20010604
PRIORITY APPLN. INFO.:			US 1991-726609	B1 19910709
			US 1994-190789	B2 19940127
			US 1995-552369	A1 19951103

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The authors disclose the construction of multivalent recombinant raccoon poxviruses contg. exogenous viral genes inserted into either the thymidine kinase gene, the hemagglutinin gene, or both. The multivalent recombinant raccoon poxviruses are administered as vaccines to immunize **felines** against subsequent challenge by **feline** pathogens. In one example, the VP2 protein of panleukopenia virus and the G glycoprotein of rabies virus, were inserted into the thymidine kinase gene of raccoon poxvirus using a vaccinia plasmid and insertion cassette. The recombinant virus induced a neutralizing antibody response in vaccinated **cats**.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Other References

ACCESSION NUMBER: 1995:563505 CAPLUS
DOCUMENT NUMBER: 122:288918
ORIGINAL REFERENCE NO.: 122:52675a,52678a
TITLE: Monoclonal antibodies specific for **feline** infectious **peritonitis** virus
INVENTOR(S): Corapi, Wayne; Scott, Fred
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9508575 A1 19950330 WO 1994-US10634 19940920
W: JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: US 1993-124959 A 19930921
AB The present invention provides novel hybridoma cell lines which produce novel monoclonal antibodies (MoAbs) which specifically bind epitopes found on a structural protein of **feline** infectious **peritonitis** virus (FIPV), exhibit no cross-reactivity with relates coronaviruses, and fail to induce antibody-dependent enhancement of infection. The structural protein is selected from spike, **nucleocapsid** or membrane protein. The monoclonal antibody is a IgG or IgGγ1 or its κ light chain. The novel MoAbs produced by the hybridoma cell lines of the invention can be use in assays for the detection of **feline** infectious **peritonitis** virus in domestic as well as exotic **cats**, and for the therapeutic and/or prophylactic treatment of **cats** against **feline** infectious **peritonitis** (FIP) from infection by FIPV.
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN
Full Text | Info References

ACCESSION NUMBER: 1993:487389 CAPLUS
DOCUMENT NUMBER: 119:87389
ORIGINAL REFERENCE NO.: 119:15517a,15520a
TITLE: Detection of **feline** infectious **peritonitis** virus infection in cell cultures and peripheral blood mononuclear leukocytes of experimentally infected **cats** using a biotinylated cDNA probe
AUTHOR(S): Martinez, Mitzi L.; Weiss, Richard C.
CORPORATE SOURCE: Coll. Vet. Med., Auburn Univ., Auburn, AL, USA
SOURCE: Veterinary Microbiology (1993), 34(3), 259-71
CODEN: VMICDQ; ISSN: 0378-1135
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A dot blot hybridization assay, using a biotinylated cDNA probe, was able to detect **feline** infectious **peritonitis** virus (FIPV) RNA in Felis catus whole fetus (fcef-4) cells infected with the FPIV isolates DF2, 79-1146, UCD1, and UCD2. The probe cross-hybridized in the dot blot assay with nucleic acid of a closely related **feline** coronavirus, **feline** enteric coronavirus (FEC)-79-1683. To construct the probe, a 2.5 kilobase cDNA, prepd. from FIPV-DF2 genomic RNA, was molecularly clones. The recombinant cDNA clone was digested with the restriction endonuclease Rsa I, and an 870 basepair Rsa I fragment was isolated from vector DNA by agarose electrophoresis and glassmilk purifn. This fragment was complementary to the 3' three fourths of the **nucleocapsid** gene. The hybridization probe was prepd. by random primed labeling in the presence of biotin-11-dUTP. Using an avidin-alk. phosphatase conjugate and chemiluminescent substrate detection system, virus could be detected in as few as 3000 infected cells. In an in vivo study, the probe was used to detect FIPV RNA in peripheral blood mononuclear leukocytes (PBML) isolated at various post-infection days (PID) from **cats** exptl. infected with the FIP-producing coronavirus isolate FIPV-79-1146 or EIPV-DF2. Viral RNA could be detected in as few as 12,000 PBML isolated from **cats** at PID 7 and in 50,000 PBML at PID 22. There was no consistent pattern, however, between hybridization results and prognosis or severity of disease at the time of sampling. Despite some cross-hybridization with FECV RNA, this probe should be useful for diagnosis of FIP, because **cats** infected with FECV most likely do not become viremic.
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

L8 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1991:486287 CAPLUS
DOCUMENT NUMBER: 115:86287
ORIGINAL REFERENCE NO.: 115:14703a,14706a
TITLE: Primary structure of the membrane and **nucleocapsid** protein genes of **feline** infectious **peritonitis** virus and immunogenicity of recombinant vaccinia viruses in kittens
AUTHOR(S): Vennema, Harry; De Groot, Raoul J.; Harbour, David A.; Horzinek, Marian C.; Spaan, Willy J. M.
CORPORATE SOURCE: Fac. Vet. Med., State Univ. Utrecht, Utrecht, 3508 TD, Neth.
SOURCE: Virology (1991), 181(1), 327-35
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Feline** infectious **peritonitis** virus (FIPV) causes a mostly fatal, immunol. mediated disease in **cats**. Previously, it was demonstrated that immunization with a recombinant vaccinia virus expressing the FIPV spike protein (S) induced early death after challenge with FIPV (Vennema, H., et al., 1990). This paper describes similar immunizations with the FIPV membrane (M) and **nucleocapsid** (N) proteins. The genes encoding these proteins were cloned and sequenced. Comparison of the amino acid sequences with the corresponding sequences of porcine transmissible gastroenteritis virus revealed 84.7 and 77% identity for M and N, resp. Vaccinia virus recombinants expressing the cloned genes induced antibodies in immunized kittens. Immunization with neither recombinant induced early death after challenge with FIPV, strongly suggesting that antibody-dependent enhancement is mediated by antibodies against S only. Immunization with the N protein recombinant had no apparent effect on the outcome of challenge. However, three of eight kittens immunized with the M protein recombinant survived the challenge, as compared to one of eight kittens of the control group.
OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

L8 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1989:54207 CAPLUS
DOCUMENT NUMBER: 110:54207
ORIGINAL REFERENCE NO.: 110:8897a,8900a
TITLE: Porcine epidemic diarrhea virus (CV 777) and **feline** infectious **peritonitis** virus (FIPV) are antigenically related
AUTHOR(S): Zhou, Yaling; Ederveen, J.; Egberink, H.; Pensaert, M.; Horzinek, M. C.
CORPORATE SOURCE: Vet. Fac., State Univ., Utrecht, Neth.
SOURCE: Archives of Virology (1988), 102(1-2), 63-71
CODEN: ARVIDF; ISSN: 0304-8608
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using gut sections from pigs infected with porcine epidemic diarrhea virus (strain CV 777) and ascitic fluid from **cats** which had succumbed to **feline** infectious **peritonitis** (FIP), a weak cross reaction was found by immunfluorescence. Its specificity was confirmed when

detergent-treated purified CV 777 showed a prominent reaction with FIPV antibodies in ELISA; no reaction was obtained with intact virions, which indicated common determinants on an internal component of the particle. Antigenic cross-reactions at the **nucleocapsid** level were found in Western blot ELISA performed both ways (CV 777/FIPV antibodies; FIPV/CV 777 antibodies). In immunopptn. using [35S]methionine labeled FIPV, anti-CV 777 sera recognized exclusively the **nucleocapsid** protein. The significance of these findings for the classification of coronaviruses is discussed.

L8 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1986:184686 CAPLUS
DOCUMENT NUMBER: 104:184686
ORIGINAL REFERENCE NO.: 104:29245a,29248a
TITLE: Virion polypeptide specificity of immune complexes and antibodies in **cats** inoculated with **feline** infectious **peritonitis** virus
AUTHOR(S): Horzinek, Marian C.; Ederveen, Joke; Egberink, Herman; Jacobse-Geels, Helen E. L.; Niewold, Theo; Prins, Jan
CORPORATE SOURCE: Vet. Fac., State Univ., Utrecht, 3508 TD, Neth.
SOURCE: American Journal of Veterinary Research (1986), 47(4), 754-61
CODEN: AJVRAH; ISSN: 0002-9645
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Immune complexes purified from sera and ascitic fluids of **cats** after inoculation with **feline** infectious **peritonitis** (FIP) virus contained proteins and proteolytic fragments of the peplomer, **nucleocapsid**, and envelope polypeptides; in addn., host proteins were demonstrated in the immune complexes. Free (uncomplexed) antibodies against the 3 classes of virion polypeptides were detected and quantitated; the weakest and latest response was directed against the peplomer protein. Immunofluorescence titers showed the best correlation with the antibody response directed against the envelope polypeptides. Differences in reactivity were not found between sera and ascitic fluids from the same animals and between seropos. healthy **cats** and **cats** which had died of FIP. Humoral antibody and hypergammaglobulinemia showed a linear correlation, but the wide variation in antiviral titers at a given concn. of γ-globulin indicated that addnl. (autoimmune) reactions occur during the pathogenesis of FIP.

L8 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1986:86739 CAPLUS
DOCUMENT NUMBER: 104:86739
ORIGINAL REFERENCE NO.: 104:13753a,13756a
TITLE: Antigenic structure of transmissible gastroenteritis virus. I. Properties of monoclonal antibodies directed against virion proteins
AUTHOR(S): Laude, Hubert; Chapsal, Jean Michel; Gelfi, Jacqueline; Labiau, Suzanne; Grosclaude, Jeanne
CORPORATE SOURCE: Stn. Rech. Virol. Immunol., Inst. Natl. Rech. Agron., Thiverval-Grignon, 78850, Fr.
SOURCE: Journal of General Virology (1986), 67(1), 119-30
CODEN: JGVIAY; ISSN: 0022-1317
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Thirty-two hybridoma cell lines producing monoclonal antibodies (MAbs) against the 3 major structural proteins of transmissible gastroenteritis virus (TGEV) have been isolated. Radioimmunopptn. of intracellular viral polypeptides showed that 17 hybridomas recognized both the peplomer protein [E2, 220 × 103 mol. wt. (220K)] and a lower mol. wt. species (E'2, 175K), which was characterized as a precursor of E2. Six MAbs selectively immunopptd. the E'2 protein. Four hybridomas were directed against the low mol. wt. envelope protein (E1, 29K), and 3 against the nucleoprotein (N, 47K). All major neutralization-mediating determinants were carried by the peplomers. Several anti-E2 MAbs displayed an intrinsic neutralizing activity close to that of the most potent anti-TGEV polyclonal reagents tested (including ascitic fluid of **feline** infectious **peritonitis** virus-infected **cats**). None of the anti-E'2 MAbs induced significant neutralization, although this protein might be incorporated to some extent into the virions. Immunofluorescence patterns obtained with MAbs directed against either the envelope glycoproteins or the **nucleocapsid** revealed distinctly different distributions of these antigens within the cells. Comparison of 9 TGEV strains using the panel of MAbs confirmed their close antigenic relationship, but revealed the occurrence of distinct antigenic differences.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L8 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2010 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1985:503032 CAPLUS
DOCUMENT NUMBER: 103:103032
ORIGINAL REFERENCE NO.: 103:16485a,16488a
TITLE: Competitive enzyme immunoassays for the rapid detection of antibodies to **feline** infectious **peritonitis** virus polypeptides
AUTHOR(S): Fiscus, Susan A.; Teramoto, Yoshio A.; Mildbrand, Michael M.; Knisley, Cathy V.; Winston, Scott E.; Pedersen, Niels C.
CORPORATE SOURCE: Syngene Prod. and Res., Inc., Fort Collins, CO, 80524, USA
SOURCE: Journal of Clinical Microbiology (1985), 22(3), 395-401
CODEN: JCMIDW; ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Monoclonal antibodies specific for the envelope (E1), peplomer (E2), and **nucleocapsid** (N) polypeptides of **feline** infectious **peritonitis** virus (FIPV) were used in rapid, competitive ELISA to study the humoral immune response of **cats** to FIPV infection. Results from the competitive ELISAs were correlated with those from immunofluorescent antibody assays (IFAs) on 203 samples obtained from 64 individual **cats**. The IFA results correlated best with those obtained with the anti-E1 specific competitive ELISA (85.7%). In contrast, anti-N and anti-E2 competitive ELISA results correlated with IFA results only 65.5 and 2.4% of the time, resp. The results of the anti-E1 specific competitive ELISA were not influenced by the total Ig concn. or the possible presence of free viral antigens in the serum. These results suggest that a competitive ELISA involving the use of enzyme-conjugated monoclonal antibody to the E1 glycoprotein of FIPV is a simple and rapid replacement for the more cumbersome IFA.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

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